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1: *Comput Appl Biosci* 1993 Jun;9(3):299-314

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A system for pattern matching applications on biosequences.

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ANREP is a system for finding matches to patterns composed of (i) spacing constraints called 'spacers', and (ii) approximate matches to 'motifs' that are, recursively, patterns composed of 'atomic' symbols. A user specifies such patterns via a declarative, free-format and strongly typed language called A that is presented here in a tutorial style through a series of progressively more complex examples. The sample patterns are for protein and DNA sequences, the application domain for which ANREP was specifically created. ANREP provides a unified framework for almost all previously proposed biosequence patterns and extends them by providing approximate matching, a feature heretofore unavailable except for the limited case of individual sequences. The performance of ANREP is discussed and an appendix gives a concise specification of syntax and semantics. A portable C software package implementing ANREP is available via anonymous remote file transfer.

MeSH Terms:

- Base Sequence*
- Human
- Molecular Sequence Data
- Pattern Recognition*
- Software*
- Support, Non-U.S. Gov't
- Support, U.S. Gov't, P.H.S.
- User-Computer Interface

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